

Barskiy, M.P.; CHEKHOVSKAYA, T.P., red.izd-va; MOCHALINA, Z.S.,  
tekhn.red.

[Instructions of safety engineering for boiler firemen  
tending gas furnaces] Pamiatka po tekhnike bezopasnosti dlia  
kochegara, obsluzhivaiushchego gazovye topki. Moskva, Gos.  
izd-vo lit-ry po stroit., arkhit. i stroit.materialam, 1961.  
22 p. (MIRA 15:2)

(Boilers--Safety measures)

BARSKIY, M.P.; SEGEYEV, Ye.I., inzh., nauchnyy red.; PROKOF'YEV, V.I.,  
red.izd-va; KAZANOV, P.Ye., tekhn.red.

[Safety manual for operators of mobile electric power plants]  
Pamiatka po tekhnike bezopasnosti dlia mashinista peredvizhnykh  
elektrostantsii. Moskva, Gos.izd-vo lit-ry po stroit., arkhit.  
i stroit.materialam, 1960. 21 p. {MIRA 15:4}  
(Electric power plants—Safety regulations)

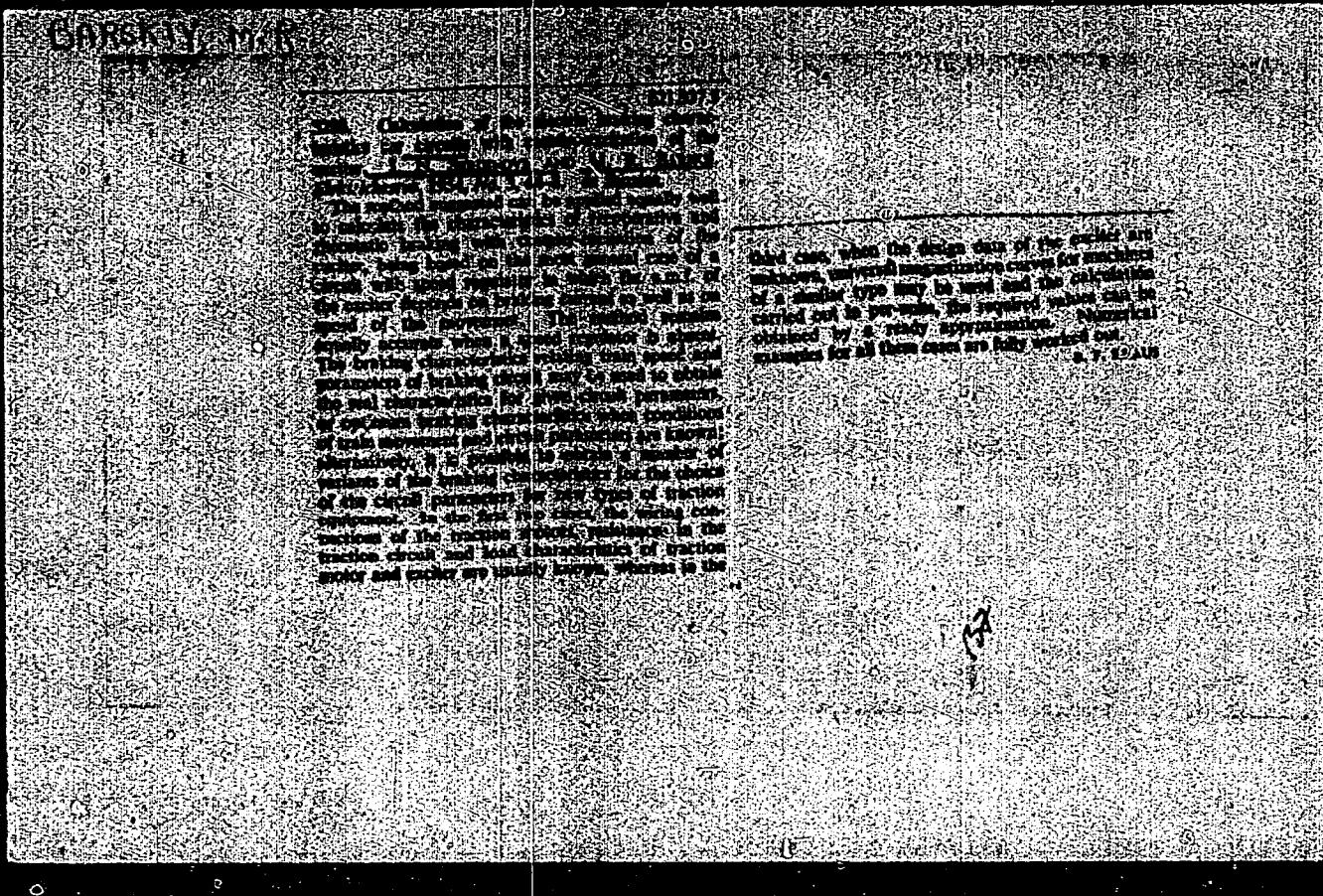
BARSKIY, M.P.; ZHURAVLEV, B.A., red.izd-va; TARKHOVA, K.Ye.,  
tekhn. red.

[Safety manual for boiler firemen tending gas furnaces]  
Pamiatka po tekhnike bezopasnosti dlja kochegara, obslu-  
zhivaiushchego gazovye topki. Izd.2., dop. i perer. Moskva,  
Gosstroizdat, 1963. 31 p. (MIRA 16:8)  
(Boilers—Safety measures)

BARSKIY, M.R., kand.tekhn.nauk; SERDINOVA, I.N., kand.tekhn.nauk; RAKOV, V.A., red.;  
VERINA, G.P., tekhn.red.

[Increasing tractive and braking capacities of electric locomotives] Uluchshenie tiagovykh i tormoznykh svoistv elektrovoзов.  
Moskva. Gos.transp.zhel-dor.izd-vo. 1952. 181 p. (Moscow. Vsesoiuznyi  
nauchno-issledovatel'skiy institut zheleznodorozhnogo transporta.  
Trudy, no. 64) (MIRA 12:1)

(Electric locomotives)



BARSKIY, M.R., kandidat tekhnicheskikh nauk; KASTER, I.M., inzhener.

Consultation on electric traction equipment in Riga. Elektrichesstvo  
no.3:86-88 Mr '54. (MLRA 7:4)

1. Sovet nauchnykh inzhenerno-teknicheskikh obshchestv Latviyskoy  
SSR. (Riga--Electric railroads--Equipment and supplies)  
(Equipment and supplies--Electric railroads--Riga)

112-3-5978

Translation from: Referativnyy Zhurnal, Elektrotehnika, 1957  
Nr 3, p. 134 (USSR)

AUTHOR: Barskiy, M. R.

TITLE: Electric Braking of Motorcar Trains (Elektricheskoye  
tormozheniye motorvagonnykh sektsiy)

PERIODICAL: In Sbornik: Materialy nauch.-tekhn. soveshchaniya po  
tyagovomu elektrooborudovaniyu, November 1953, Riga,  
1955, pp. 52-55

ABSTRACT: It is pointed out that 5,000 to 10,000 brake shoes are  
expended every year by each nine-car electric train con-  
sisting of units of the CP type. In one year, such a  
train produces 30 to 50 tons of cast-iron dust, some of  
which enters the electrical equipment of the car, the  
devices of the signal, centralization and blocking sys-  
tem (STsB), and of the communication system. The use  
of rheostatic electric braking with self-excitation of  
the traction motors is suggested, similar to the brak-  
ing system in use in subway trains. For this purpose,  
traction motors with 750 v on the commutator are

Card 1/2

112-3-5978

Electric Braking of Motorcar Trains (Cont.)

required for suburban trains. Comparative traction computations indicated that the losses for starting, which increased up to 40% (2.8 watt-hours per ton), are compensated for by an improvement in efficiency of the motors at high speeds. With a commutator voltage of 750 v, the starting system can be simplified and commutation stability is increased. (Riga Electric Machine Plant) I.V.I.

ASSOCIATION: Riga Electric Machine Plant (Rizhskiy elektromashino-stroitel'nyy zavod)

Card 2/2

15A R S K I Y M. R.

112-2-3513

Translation from: Referativnyy Zhurnal, Elektrotehnika, 1957,  
Nr 2, p.146 (USSR)

AUTHOR: Barskiy, M.R.

TITLE: Operating Experience and the Results of Standard Tests  
of Electrical Equipment on CP-3 Electric-Car Sections  
(Opyt ekspluatatsii i rezul'taty tipovykh ispytaniy  
elektrooborudovaniya motor-vagonnykh sektsiy CP-3)

PUBLICAL: In Sbornik: Materialy nauch.-tekhn. soveshchaniya po  
tyagovomu elektrooborudovaniyu, Noyabr' 1953, Riga,  
1955, pp.143-162

ABSTRACT: The production of the CP-3 sections with improved electrical equipment designed to operate on a single, 3,000 volt network voltage has begun to replace the two voltage-CP electric car sections. The design of power circuit equipment for traction motors and production processes have been considerably simplified. The sections consist

Card 1/3

112-2-3513

Operating Experience and the Results of Standard Tests (Cont.)

of one motor and two trailer cars. The cars are 19.3 m long. The motor car weighs 62 tons and the trailer car weighs 39 tons. Maximum speed is 85 km/hr. The average hourly speed is 65 km/hr. The acceleration is 0.45 m/sec<sup>2</sup>. Braking deceleration is 0.6 to 0.7 m/sec<sup>2</sup>. The motors have a capacity of 4 x 198-Kw; the motor weighs 2,550 kg. The d-c generator-motor-generator set weighs 1,070 kg and operates at 1,100 rpm. The dynamotor develops a power output of 5.5 kw, the generator, 4.5 kw. The capacity of the motor-compressor is 6.2 kw and 1,650 v at 50 per cent of series excitation. Motor starting, switching from series to parallel motor connection, skidding-protection relay and overload relay operation, auxiliary-motor protection and the extent of heating of

Card 2/3

Operating Experience and the Results of Standard Tests (Cont.)

112-2-3513

starting and damper resistances are described in detail. On the whole the train operated satisfactorily during 25 test runs. The minor imperfections found are to be eliminated in the future production of this series.  
[The Riga Electric Motor Construction Factory.]

I.V.I.

ASSOCIATION: The Riga Electric Motor Construction Factory (Rizhskiy elektromashinostroitel'nyy z-d.)

Card 3/3

Bar'skiy M. R.

112-3-5981

Translation from: Referativnyy Zhurnal, Elektrotehnika, 1957  
Nr 3, p. 134 (USSR)

AUTHOR: Barskiy, M. R.

TITLE: Electrical Equipment of Experimental Air-Conditioned  
Railroad Passenger Cars (Elektrooborudovaniye opytnykh  
passazhirskikh vagonov s ustanovkoy dlya konditsirova-  
niya vozdukh)

PERIODICAL: In Sbornik: Materialy nauch.-tekhn. soveshchaniya po  
tyagovomu elektrooborudovaniyu, November 1953, Riga,  
1955, pp. 163-173

ABSTRACT: The Riga Electric Machinery Plant produces the elec-  
trical equipment for two experimental air conditioner  
units for all-metal passenger cars. The units are  
electro-mechanical and are provided with a Freon com-  
pressor. Power for each unit is supplied by two genera-  
tors, each weighing 575 kg and with a power output of  
11.2 kw, with a drive to the wheel axle. The air con-  
ditioner units are fully automated. Due to the special  
power supply for the units (two generators per car),

Card 1/2

112-3-5981  
Electrical Equipment of Experimental Air-Conditioned (Cont.)

they are very heavy and complex. With a central a-c power supply, the design of the entire air conditioner unit can be simplified considerably. (Riga Electric Machine Plant). I.V.I.

ASSOCIATION: Riga Electric Machine Plant (Rizhskiy elektromashinostroitel'nyy zavod)

Card 2/2

SOV/112-58-2-2340

Translation from: Referativnyy zhurnal, Elektrotehnika, 1958, Nr 2, p 91 (USSR)

AUTHOR: Barskiy, M. R.

TITLE: The Electrical Equipment and Automatic Control Systems of Suburban Train Motor Coaches (Elektricheskoye i sistemy avtomaticheskogo upravleniya motor-nykh vagonov prigordnykh poezdov)

PERIODICAL: Tr. Raboty M-va elektrotekhn. prom-sti SSSR po mekhaniz. i avtomatiz. nauch. klin. 2. M., 1956, pp 25-33

ABSTRACT: The fundamental technical data of the C<sub>3</sub><sup>P</sup> train section as now built by Soviet industry are: voltage 3 kv, motor-coach one-hour rating 720 kw, one-hour and maximum speeds 59 and 85 km/h respectively, average acceleration and deceleration 0.45 and 0.70 m/sec<sup>2</sup> respectively. The type DK 103G series-wound traction motor has a supporting-axis suspension. The train has automatic remote control. The principal control device is a controller that effects resistance starting by individual contactors through accelerating relays and switches over the traction motors. A new Type ER 1 electric train has been developed and it will consist of 5 motor coaches and 5 trailers, of which 3

Card 1/2

SO7/112-58-2-2340

The Electrical Equipment and Automatic Control Systems of Suburban-Train . . . .  
are intermediate, while 2 terminate the train and have control stations. Bringing the number of traction axles up to 50% and increasing the train (20-DK 106B) power brought the maximum speed to 130 km/h and the starting acceleration to 0.7 m/sec<sup>2</sup>. The weight of the traction motor per unit power has been reduced by 23%, and is 11 kg/kw. The motor has a self-contained supporting-frame suspension and is connected to the axle by a kardan coupling and a single-step gear. Electrical-equipment weight has been considerably reduced (by 26%). The automatic control system of the ER 1 is almost identical with that of the C<sub>3</sub>. An original system of automatically-controlled regenerative-and-rheostatic braking has been developed, and is scheduled to be used in 24-m-long ER 5 electric trains from 1957 on. Simplified power-circuit diagrams of the C<sub>3</sub> and ER 5 are presented, as well as control-circuit diagrams with rheostatic controllers and individual contactors.

B.N.G.

Card 3/7

BARSKIY, M. R.

ZALESSKIY, V. N., kandidat tekhnicheskikh nauk; ZALESSKIY, I. V., student.

The ES-1 electric train; equipment and circuits. (Eng. I tepl.)  
Diagram no. 3:13-18 Mr '67. (USSR 1967)  
(Electric locomotives)

BARSKIY, Moisey Rafailovich, kand.tekhn.nauk; KOLESNICHENKO, Vitaliy  
Onufrievich, inzh.; KASTER, Yefim Samuilovich, inzh.; SHIRYAYEV,  
A.P., inzh., red.; VERINA, G.P., tekhn.red.

[The ER1 electric train] Elektropoезд ER1. Moskva, Gos. transp.  
zhelez-dor. izd-vo, 1958. 165 p. (MIRA 12:1)  
(Electric railroads)

BATALOV, Nikolay Mikhaylovich; PETROV, Boris Petrovich; BARSKIY, M.R.,  
kand. tekhn.nauk, retsenzent; KRICHKO, A.I., inzh., retsen-  
zent; STEPANOV, A.D., doktor tekhn. nauk, retsenzent;  
SIDOROV, N.I., inzh., red.; LANCIONOV, G.Ye., tekhn. red.

[Electric traction machinery] Tiagovye elektricheskie apparaty.  
Moskva, Gos. energ. izd-vo, 1961. 207 p. (MIRA 15:3)  
(Electric machinery) (Electric railroads)

BARSKIY, M.R.; ZVORYKIN, M.L.; SURGUCHEV, I.V.; CHEREKEZ, V.M.;  
SHENDEROVICH, M.Ye., retsentent; SARANTSEV, Yu.S., red.;  
USENKO, L.A., tekhn. red.

[Electric equipment and air-conditioning systems for passenger cars] Elektrooborudovanie i konditsionirovaniye ovzdukhа passazhirskikh vagonov. [By] M.R.Barskii i dr. Moskva, Transzhelizdat, 1963. 234 p. (MIRA 16:12)  
(Railroads--Passenger cars--Air conditioning)  
(Railroads--Electric equipment)

BARSKIY, Moisey Rafailovich, kand. tekhn.nauk; GLUSHKOV,  
Mikhail Tikhonovich, inzh.; GONCHARENKO, Konstantin  
Borisovich, inzh.; ZALESSKIY, Lev Grigor'yevich,  
inzh.; LALETIN, Geryat Pavlovich, inzh.; LYLYUK,  
Leonid Savvovich, inzh.; KAPUSTIN, L.D., red.

[The ER9 electric train] Elektropoezd Er9. [By] M.R.  
barskii i dr. Moskva, 1964. 234 p. (MIRA 18:1)

BARSKIY, M.F., kand. tekhn. nauk; GLUSHKOV, M.G., inzh.

Improvement of the electric multiple unit rolling stock. Zhel.  
dor. transp. 46 no.5:34-40 My '64. (MIRA 18:2)

1. Rukovoditel' laboratorii perspektivnykh razrabotok Rizhskogo  
filiala Vsesoyuznogo nauchno-issledovatel'skogo instituta vagono-  
stroyeniya (for Barskiy). 2. Zamestitel' direktora Rizhskogo  
filiala Vsesoyuznogo nauchno-issledovatel'skogo instituta vagono-  
stroyeniya (for Glushkov).

BARSKII, O.B.

Characteristics of certain vegetative reactions in hypertensive adolescents. Pediatriia 37 no.7:13-16 J1 '59. (MIRA 12:10)

1. Iz otdela rabochego podrostka (rukoveditel' - kand.med.nauk V.M.Levin) Leningradskogo nauchno-issledovatel'skogo instituta gigiyeny truda i profzabolevaniy (dir. - doktor med.nauk Z.E. Grigor'yev).

(HYPERTENSION, physiol.

autonomic NS in adolescents (Rus))

(AUTONOMIC NERVOUS SYSTEM, in var. dis.

hypertension in adolescents (Rus))

LEVIN, V.M., kand.med.nauk; RUTENBURG, E.S., kand.med.nauk; BARSKIY, O.B.,  
mladshiy nauchnyy sotrudnik

Volume of the physician's consultative work in the school. Gig.  
i san. 25 no. 12:68-71 D '60. (MIRA 14:2)

1. Iz ot dela rabochey molodezhi Nauchno-issledovatel'skogo  
instituta gigiyeny truda i professional'nykh zabol evaniy,  
Leningrad.

(SCHOOL HYGIENE)

BARSKIY, O.B.

Determination of some hemodynamic indices, magnitude of the  
vital capacity and maximal ventilation of the lungs. Vrach.  
delo no.1:112-114 Ja'64 (MIRA 17:3)

1. Otdel rabochey molodezhi (rukovoditel' - kand. med. nauk  
V.M. Levin) Leningradskogo nauchno-issledovatel'skogo institu-  
ta gigiyeny truda i professional'nykh zabolеваний.

BARSKIY, R. G.

USSR/Electricity  
Motors, Synchro  
Exciters, Synchro

Sep 48

"The Problem of Starting Synchronous Motors With Constant Excitation" R. G. Barskiy,  
Engr., MSPTI, 1 3/4 pp

"Vest Elektro-From" No 9

Describes three methods of coping with subject problem, with three circuit diagrams  
[redacted]

PA 32/49T5

BARSHTY, R.G.

"Rational Reserves of Electrical Equipment for Shaft  
Hoisting Machines," Gor., Zhur., No. 9, 1949

BARSKIY, S.M., inzh.; ZEKTSER, D.M., inzh.

On Engineer A.L. Kats' article. Vest.elektrprom. 28 no.8:77-78  
Ag '57. (MIRA 10:10)

1.Zavod "Transsvyaz".  
(Automatic control)

SOV/110 59-5-4/25

AUTHORS: Barskiy, S.M., Engineer and Zektser, D.M., Engineer

TITLE: Plug-In Type Coding Relay (Kodovyye rele shtepsel'nogo tipa)

PERIODICAL: Vestnik elektro promyshlennosti, 1959, Nr 5, pp 16-18 (USSR)

ABSTRACT: Plug-in "coding" relays type KDRSh are used in remote-control equipment when it is important to be able rapidly to replace one relay by another. They differ from relays type KDR only in the use of the plug-in connections. A catalogue-style description is then given of the panels in which the relays are mounted. Four variants of the relay with various time-characteristics and contact arrangements are then briefly described. The sockets into which the relays plug are briefly described. Photographs are given of typical relays and sockets, also an assembled relay panel. Overall dimensions of relays and sockets are given in Table 1. The electrical characteristics of the relays are stated and the mechanical characteristics appear in table 2. The delay times obtainable are given in table 3. The relay is guaranteed for a million operations at currents not

Card 1/2

Plug-In Type Coding Relay

SOV/110 59-5 4/25

exceeding 2 A or five million on half this current provided that the contacts are cleaned and the springs adjusted after every million operations. There are 4 figures and 3 tables.

SUBMITTED: 18th September 1958

Card 2/2

"APPROVED FOR RELEASE: 06/06/2000

CIA-RDP86-00513R000203710020-6

KAPUSTA, A.I., zh.; KONDRATCHEV, I.V., zh.; BARKHIN, S.M., zh.

The 3M-62 adapter. Avtom., telcom. i sviaz' 8 no. 7-4-6  
J1 '84.

(MERA 17-12)

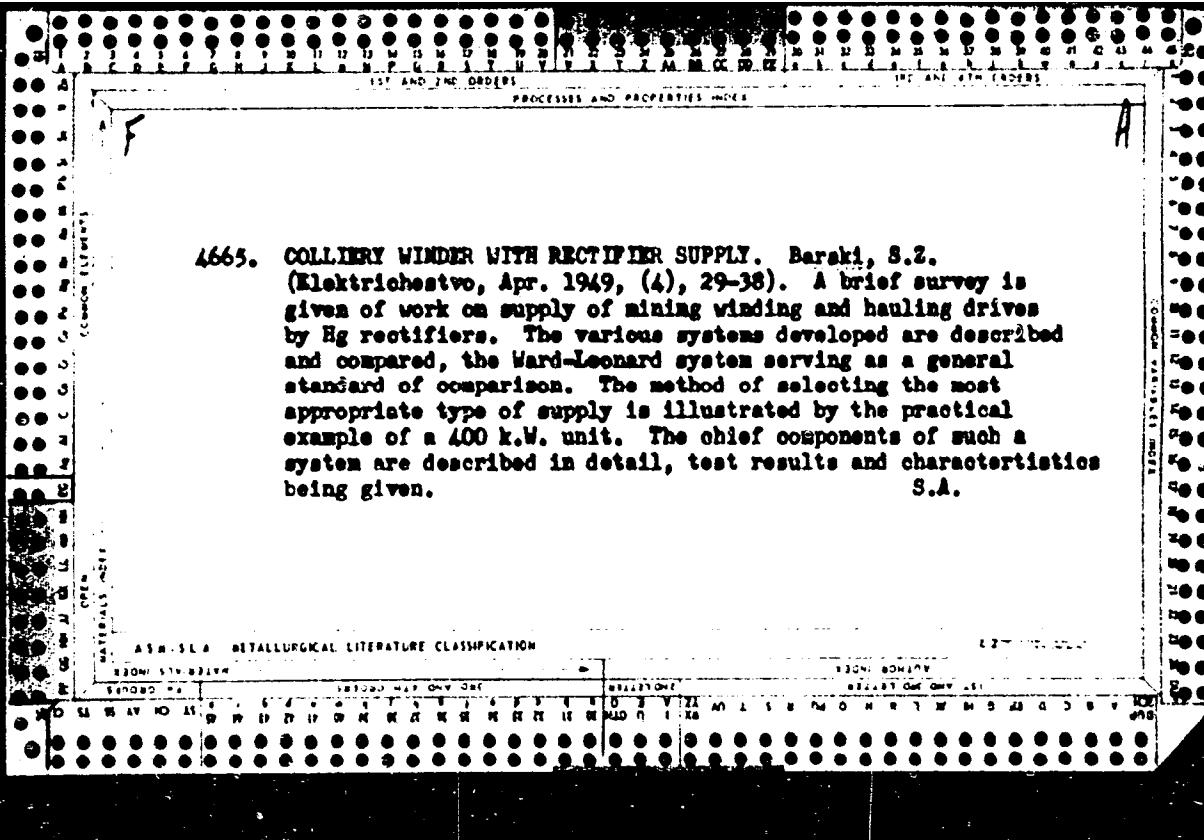
APPROVED FOR RELEASE: 06/06/2000

CIA-RDP86-00513R000203710020-6"

KAPUSTA, A.S., inzh., BESPALOV, B.N., BARSKIY, S.M.

A set of generators with stabilized frequency. Avtom. telem.  
i sviaz' 8 no.91-5 S '64. (MIRA 17:10)

1. Glavnnyy konstruktor otdela Konstruktorskogo byuro Glavnogo upravleniya signalizatsii i svyazi Ministerstva putey soobshcheniya na zavode "Transsvyaz'" (for Kapusta, Bespalov).
2. Nachal'nik otdela Konstruktorskogo byuro Glavnogo upravleniya signalizatsii i svyazi Ministerstva putey soobshcheniya na zavoda "Transsvyaz'" (for Barskiy).



PARKHARSKIY, S. Z.

PA 64/49T32

USER/Electricity  
Electrical Equipment  
Drives

Jul 49

"The Possibility of Compounding a Drive Motor  
in Leonard's Reversing System," S. Z. Parkhary,  
Gard Tech Soi, "Elektroprivvod" Trust, Min of  
Elec Ind, 6 pp

"Vest Elektro-Projekt" No 7

Notes desirability in many reversible in-  
dustrial motor drives (metallurgical and  
ore-processing machinery, etc.) of use of  
compounding. Use of anticommpounding power-  
supply generators solves this problem only in

64/49T32

USER/Electricity (contd) Jul 49

certain limited cases. Electric motor  
amplifiers make it possible to achieve com-  
pounding by using normal shunt motors. In  
this case, compounding will be effective during  
reverses, and permits a simple solution of  
a number of other problems. Presents diagrams,  
basic parameters, and characteristics of system,  
and several variations of scheme (including  
double compounding.)

64/49T32

USSR/Electricity - Electric Drives  
Regulators

MAY 50

167T9  
"Analysis of Electric Drive Systems With Falling  
Characteristics," S. Z. Barskiy, Cand.Tech.Sci.,  
Cen Sci Res Lab of Elec Drives and Automatics,  
"Elektroprivod" Trust

"Elektricheskvo" No 5, pp 35-43

Principles of limiting current, voltage, speed, acceleration, and power of regulated drive with electric machine control. Gives graphic methods of calculating drive characteristics, taking account of nonlinearities -- generator saturation and

167T9

USSR/Electricity - Electric Drives  
(Contd)

MAY 50

varying resistance of dry-disk rectifiers. Results of experiments on medium-power installation, including oscillograms and characteristics taken over wide range of load variation.

Submitted 4 Nov 49.

167T9

BARSKII, S.Z.

USSR/Electricity - Motors, Induc-  
tion  
Converters

Jun 51

"An Induction Machine Cascade With an Ionic  
Converter," S. Z. Barskiy, Cand Tech Sci,  
Moscow

"Elektrichesivo" No 6, pp 37-46

Gives basic variations of circuits of an  
induction machine cascade with an ionic  
converter. Derives eqs for emfs and cur-  
rents and presents equiv circuits and vec-  
tor diagrams for elec and electromech  
200714

Jun 51

USSR/Electricity - Motors, Induc-  
tion (Contd)

cascades. Deduces basic relationships of  
the torque and power of the cascaded machines have  
function of slip when the end machines have  
different excitation compounding. Examines  
conditions of crit compounding for cascade  
automatic elec-machine control for recom.  
systems. Describes cascade systems submitted  
for a multimotor drive. Submitted  
29 Mar 50.

200714

"APPROVED FOR RELEASE: 06/06/2000

CIA-RDP86-00513R000203710020-6

BARSKY, S. Z.

"Reserves of High Precision of Statistical Regulating of Automatic Electro-Control,"  
Electricity, Publ. by the Printing House of the Govt. Energy (Electrical) Publ.  
House, in Moscow, 1952.

APPROVED FOR RELEASE: 06/06/2000

CIA-RDP86-00513R000203710020-6"

BARSKIY, S. Z.

PA 237T14

USSR/Electricity - Electric Drive

Jun 52

"Use of Latent System Potentialities for Increasing  
the Accuracy of Static Regulation of Automatic Elec-  
tric Drive," Cand Tech Sci S.Z. Barskiy, Moscow

"Elektrichestvo" No 6, pp 37-41

Describes method for calcg accuracy of static re-  
gulation of motor-generator type electric drive  
with wide range of speed control. Examines prin-  
ciples behind control of drive with variable feed-  
back and gives procedure for calcg such systems.  
Cites variations of parametric systems with vari-  
able feedback and shows methods for their calcn.  
Submitted 24 Nov 51.

237T14

USSR/Electricity - Electrical Machines Dec 52  
Ferromagnetism

"Longitudinal-Transverse Magnetization and Its  
Occurrence in Electrical Machines," Card Tech  
Sci, S. Z. Barskiy, Moscow

"Elektricheskvo" No 12, pp 22-28

Examines effects occurring in the longitudinal-  
transverse magnetization of ferromagnetic cir-  
cuits when both fluxes are constant and when one  
is variable. These effects occur in elec ma-  
chines and exptl results are included. The  
principle has been used for ferroresonance

242T23

circuits and parametric oscillator circuits, as  
well as for static ferromagnetic frequency dou-  
blers and multipliers (e.g., the original frequency  
converter designed by G. N. Petrov and M. S. Mik-  
aylov-Mikulinskiy). Submitted 21 Apr 52

242T23

BARSKIY, S.

242T23

BARKIY, S. Z.

Electrical Engineering Abstracts  
May 1954  
Machines

1891. Some problems of the synchronized Induction motor. S. Z. BARKIY, Elektrichesivo, 1953, No. 11, 45-52. In Russian.

The main propositions of the theory of the synchronized induction motor are expounded. Relations for the currents, c.m.f.'s and powers in various conditions of excitation and loading are derived and the corresponding vector diagrams plotted. A rational scheme of motor excitation assuring the most favourable thermal conditions is selected. The calculation of currents and powers of the machine for optimum utilization of the active materials while maintaining statical stability is also shown.

B. I. KRIE

BARSKIY, S.Z.

AID P - 1898

Subject : USSR/Electricity

Card 1/2 Pub. 29 - 3/25

Author : Barskiy, S. Z., Kand. of Tech. Sci.

Title : Industrial use of a two-induction-motor drive and some of its advantages

Periodical : Energetik, no.2, 7-11, F 1955

Abstract : Depending on conditions and working requirements, a two-motor drive presents several advantages in comparison with a single-motor drive, according to the author, who enumerates them as follows:  
1) possibility of minimum utilization of required equipment; 2) increase in dependability because of the opportunity of using either set of equipment; 3) significant economy in energy achieved by operating just one of the motors when the work is light; 4) elimination of waste because of the comparatively smaller fly-wheel weight;

AID P - 1898

Energetik, no.2, 7-11, F 1955

Card 2/2 Pub. 29 - 3/25

5) facilitated handling of smaller units. The shortcomings of a two-motored asynchronous drive are the larger space required and the higher outlay of initial capital involved. The author describes the operation of a two-motored asynchronous drive under various circumstances with 7 diagrams.

Institution: None

Submitted : No date

BARS'KIY, S.Z.

On V.I. Ivanenck's article: "Comparing three control methods used in automatic control systems." Avtomatyka no.3:91-95 '56. (MIRA 9:11)  
(Automatic control)

SOV/110-59-1-2/28

AUTHOR: Barskiy, S.Z. (Candidate of Technical Sciences)  
TITLE: An Analysis of the Influence of Variable Temperature  
Conditions on the Characteristics of Controlled Electrical  
Machines (Analiz vliyaniya peremennykh temperaturnykh  
rezhimov na kharakteristiki reguliruyemykh elektricheskikh  
mashin)

PERIODICAL: Vestnik Elektropromyshlennosti, 1959, Nr 1, pp 3-9 (USSR)

ABSTRACT: Temperature variations can cause important changes in the characteristics of electrical machines. In studying this question it is necessary to note that variations depend both upon the heat-losses in the machine and the ambient temperature. The upper temperature-limits of machines are set by the class of insulation, and the lower limit by the ambient temperatures met in industry, which in large open shops may be taken as 0°C. Over this temperature range the resistance of a winding is a linear function of temperature. A machine with class B insulation is considered and Fig 1 gives graphs of the changes with temperature of the static and dynamic characteristics of a d.c. amplidyne running at constant speed with independent excitation. The shaded areas

Card 1/5

SOV/110-59-1-2/28

An Analysis of the Influence of Variable Temperature Conditions on  
the Characteristics of Controlled Electrical Machines

represent the range of characteristics that can be encountered at different temperatures. The behaviour of a shunt generator when the field-winding temperature is altered is next considered. Open-circuit voltage curves as a function of excitation are shown in Fig 2, in which the shaded area represents changes that result from temperature variations. It will be seen from the curves that if the field-winding temperature exceeds 210°C the machine will not excite. The influence of temperature is particularly important in generators with critical self-excitation as it can cause considerable alterations in their amplification factor, as may be seen from Fig 3. The influence of temperature on the dynamic characteristics of electrical machines is then considered, noting that although the transient processes are accompanied by transient thermal effects they are not important because the thermal time-constants of the machines are always relatively large. The variations of time of the main parameters of the transient process of separately-excited generator are given in Fig 4 for

Card 2/5

SOV/110-59-1-2/28

An Analysis of the Influence of Variable Temperature Conditions on  
the Characteristics of Controlled Electrical Machines

various field-winding temperatures. The way in which the rate of voltage build-up depends on these temperatures will be seen by the extent of the shaded area. Temperature effects may be greater in inter-connected machines and cascade circuits than in the individual machines composing them. Considering an open cascade circuit without internal interconnections, a diagram of which is given in Fig 5, the output e.m.f. as a function of the circuit parameter subject to the influence of temperature is given by expression (1). The corresponding expressions for the machines hot and cold are derived and plotted in Fig 5. It is shown that in one particular three-machine system the accuracy of regulation alters by a factor of 2.4 on changing from the cold to the hot condition. Transient processes and machine stability are then considered in a similar way. Fig 6 refers to a three-machine closed control system and gives calculated curves of the changes with time of the main parameters. The temperature variation limits of the individual machine and the values of the electromagnetic and thermal

Card 3/5

SOV/110 59-1 2/28

An Analysis of the Influence of Variable Temperature Conditions on  
the Characteristics of Controlled Electrical Machines

time constants are given on the same figure. With quite small changes of temperature in the individual machine the resulting amplification factor alters appreciably with time as the machines warm up changing from an initial value of 12 to a final value of about 5. It is shown that the stability of the machine can also be adversely affected. In conclusion, the results are given of tests to demonstrate the influence of temperature on the characteristics of the open three-machine system already shown in Fig 5. The results are plotted in Fig 7, showing the input and output voltages and currents in the hot and cold condition as functions of time. It will be seen that even though the temperature range is quite small the alteration in the characteristics is considerable. The article shows how great may be the influence of temperature on the static and dynamic characteristics of machines and machine systems. This effect is likely to become more important as designs are tightened up and machines come to be used under more difficult conditions. There are certain measures that should sometimes be taken

Card 4/5

SOV/110-59-1-2/28

An Analysis of the Influence of Variable Temperature Conditions on  
the Characteristics of Controlled Electrical Machines

to reduce the influence of temperature; for example, field windings of generators and excitors should be made to operate with low current-density. Low-power excitation control and feed-back circuits should include temperature compensators in the form of resistances with low temperature-coefficients. The use of open-type machine systems should be avoided because of the very marked influence of temperature on their characteristics. In designing it is important to check that the characteristics will be all right at temperature extremes, and if the system is not very stable the effect of transient temperature conditions in the machines should also be checked. There are 7 figures.

SUBMITTED: April 7, 1958

Card 5/5

Vseproizvod ob "Zelenomysje" sovremennye po elektronike i protivovzryvnoj

professori v smeshannyykh i avtomaticheskikh elektronicheskikh protsessakh v promyshlennosti.

M. N. Molchanov, 1959

**Electroprived i avtomaticheskie protsessy v elektronike: trudy konferencii po elektronike i elektricheskikh i avtomaticheskikh sistem v industrii (Electric Drive and Automatics in Industrial Systems: Transactions of the Conference Moscow, Gorkovskiy, 1960). 475 p. 11,000 copies printed.**

**General Eds.: I. I. Petrov, A. A. Sirotnik, and M. G. Chilman; Revs.: I. I. Sots, and K. P. Silayev; Tech. Eds.: I. P. Vorotin, and G. F. Lutkovsky.**

**PURPOSE:** The collection of reports is intended for the scientific and technical personnel of scientific research institutes, plants and schools of higher education.

**CONTENTS:** The book is a collection of reports submitted by scientific workers at plants, scientific institutes and schools of higher education at the third All-Union Conference on the Automation of Industrial Processes in Machine Building and Industrial Electric Drives held in Moscow on May 12-16, 1959. The Conference was called by the leaders of Science (USA), the Peoples' Commissar of State Planning Commission (USA), the USSR Academy of Sciences, the Central Committee of the Communist Party of the Soviet Union, the State Committee on Education and Science (USA), and the National Committee on Automatic Control, and prepared by the Scientific and Technical Committee on Automated Electric Drives (Institute of Electrophysics (Scientific Institute of the Academy of Sciences USA), the IAT (Institute of Mechanics and Mathematics USA) and the Institute of Technical Mathematics USA) (Central Institute on the Technology of Medicine, Institute of Mathematics and Mechanics of the Academy of Sciences USA).

It was the purpose of the Institute of Mechanics of the Academy of Sciences USA to call the conference to arrange the reports in theoretical and practical problems relating to electric drives and automatic control of industrial drives and their solution are outlined. The book also contains articles on electrocontact automatic control systems. Considerable attention is paid to magnetic and magnetic amplifiers and to computers intended both for calculators and computers already published in journals or official publications by the USSR and abroad. Abbreviations used in various branches of industry and engineering are mentioned. References necessary for the study of the transactions are included.

#### PART II. GENERAL METHODS CONCERNING THE USE OF ELECTRIC DRIVES AND AUTOMATION OF CONTROL

##### Shestopalov, Yu. D., Candidate of Technical Sciences. Electronic Control

Systems of Servoing DC Drives

Shchegoleva, I. S. Doctor of Technical Sciences. In: Avtomatika i elektronika v tekhnicheskikh i ekonomicheskikh systemakh. Institute of General Cybernetics, Academy of Sciences of the USSR. 97

Krasnogorskiy, V. A. Candidate of Technical Sciences. Present State and Prospects of the Development of Electronically Controlled Electric Drives

Chirkov, M. G. and D. Z. Korostenskij. Professor, Doctor of Technical Sciences, and I. M. Verdin, Candidate of Technical Sciences. Pulse Regulation of DC Motor Speed

Sternchenko, G. I. and V. A. Lashmanov. Doctor, Candidate of Technical Sciences, and T. N. Borisenko, Engineer. Electronic Frequency Changes for the Supply of Industrial Motors

Morozov, D. F. and V. M. Chilman. Professor, Doctor of Technical Sciences, and I. G. Lutsenko, Candidate of Technical Sciences. Pulse Control and Regulation of Electric Machine Excitation by Means of Electronic Controllers

Sukharev, V. A. Engineer. Pulse Converter-rectifier With a Wide Range of Frequency Regulation

Bardintsev, G. M. Engineer. Contact Semiconductor Converter for Variable

Streltsov, I. M., Engineer. Frequency Control of a Reactor

Kossov, O. A., Engineer. DC Drive With a Semiconductor Pulse Rectifier

Sokolov, M. M., Doctor, Candidate of Technical Sciences. V. M. Tarkhov, Candidate of Technical Sciences, and A. V. Shumakov, Engineer. Yield

of Application of Induction Electric Drives With Saturable Reactors

Lubetsky, A. M., Engineer. Adjustable Electric Drive With Magnetic Amplifiers

Aleksandrov, D. A., Engineer. Methods of Calculating Characteristics of DC Drive With Reactor Control

S/110/63/000/C02/001/002  
A055/A126

AUTHOR: Barskiy, S.Z., Candidate of Technical Sciences

TITLE: On the reliability of electric machines

PERIODICAL: Vestnik elektropromyshlennosti, no. 2, 1963, 55 - 58

TEXT: This article (a continuation of the articles published on the same subject in Vestnik Elektropromyshlennosti, no. 9, 1962) is essentially a criticism of the work of N.A. Tishchenko "Problem nadezhnosti elektricheskikh mashin" (Problem of the reliability of electric machines), no. 11, 12, 1961. The following items are criticized: 1) The data on the number of electric motors put out of service owing to breakdowns are incorrect; for instance, the figure of 13% of the total number of motors operating in the ferrous metal industry plants is exaggerated, being in contradiction with the official data for the Magnitogorsk ferrous metal industry combine (11.7% in 1951, 5% in 1955, 4% in 1960). 2) The recommendations to cease production of certain types of motors and to refrain from the introduction of other types are not well-founded. Tishchenko disregards the fact that the machines put out of operation because of their age or owing to

Card 1/2

BARSKII, S.S., kand.tekhn.nauk; SHEREMET'YEVSKIY, N.N., doktor tekhn.  
nauk

Problems concerning the generation of electric power with increased  
frequency. Vest.elektroprom. 33 no.12:54-60 D '62.

(Electric power production)

(MIRA 15:12)

BARSKIY, S.Z., kand.tekhn.nauk

Concerning the reliability of electrical machines. Vest.  
elektroprom. 34 no.2:55-58 F '63. (MIRA 16:2)  
(Electric machinery)

MARSKIV Oleg, kandidat nauk

Some problems in designing asynchronous stages. Elektricheskiye  
no. 3; 50-55 Mr. '62.  
(MIRA 1964)

1. "Usovoyuznyy machine-issledovatel'skiy institut elektromekhaniki.

BARKRY, S. P., kand. tekhn. nauk

Performance of an asynchronous machine under overload conditions.  
Elektrotehnika 35 no.12:13-15 D 1964.

(MIRA 18:4)

BARSKIY, V., inzh.

Powerful miniature hydrocyclone. IUn.tekh. 6 no.2:27-30 '62.  
(MIRA 15:2)  
(Separators (Machine))

BARSKII, V.

Magnetic fields and water. IUn.tekh. 6 no.4:17-30 Ap '62.  
(MIRA 15:6)  
(Magnetic fields)  
(Water)

BARSKIY, V.A.; PERCHIK, D.Ya.; SKORBACH, A.M.

Introducing a high-speed noncontact control system for the main drive.  
Biul. tekhn.-ekon. inform. Gos. nauch.-issl. inst. nauch. i tekhn. in-  
form. 18 no.6;43-44 Je '65.

(MIRA 18:7)

L 39729-66 EXP(d)/EMT(k)/EMT(k)/EMT(k)/EMT(k) SOURCE CODE: CR/0292/06/000/002/0019/002  
ACC NR: AP6007339

AUTHOR: Barskiy, V. A. (Eng.Rndt)

ORG: none

TITLE: Quick-response electric drive with reversible thyristor exciter

SOURCE: Elektrotehnika, no. 2, 1966, p. 1.

TOPIC TAGS: electric motor, ~~AC~~DC, thyristor, driving unit

ABSTRACT: A new quick-response AC-motor drive system is described which a 10 I<sub>max</sub>/sec rate of current-rise-rate-of-change is attained by using a special-waveform generator-field forcing. Developed by NIIelektro, a new thyristor exciter (series, freq) has a value determined only by the rectifier-inverter transition and by the time constant of a totaling magnetic amplifier with its filter (if the amplifier is linear). The quick response is a result of using a reversible system which controls the rectifier groups separately. The difference between a reference-element voltage and the generator voltage is applied to the exciter. An instruction of the acceleration-deceleration process in a 1000 amp drive corroborates its quick-

Caro 1/3

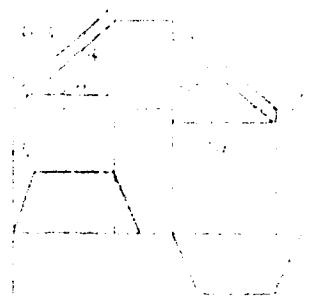
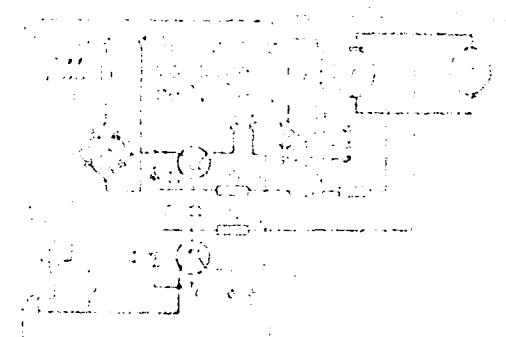
Print off. 5,073102, 1987, 1

L 397294v  
ACC NR: APT 1013086

Control current of motor driven reversible  
drum pump.

Acceleration and deceleration diagram (lower).

Card 2/3



L 39729-66

ACC NR: AP6007339

response characteristics. Such a drive cut by 40% the time of operation of the screwdown gear in a 1150-mm slabbing mill. Orig. art. has 4 figures and 3 formulas.

SUB CODE: 11, 09 / SUBM DATE: none / ORIG REF: 002

Cord 3/3 *Lia*

BAREKLY, V.B.

Determination of the critical past and related problems (within the area of aerospace computing). (Ref. Letter from V. B. Barekly, p. 215-22 "74.)  
CIRCA 1970

4. Great "Krasnaya zvezda" Glavnoe upravleniye po shchishcheniiu i vnutrennim svedeniym. Kiyevsko-kievskaya ispol'stvo opt-smitstva.

SEMUKHINA, G.V.; BARSKIY, V.D.; NOSKOV, V.V.

Photometric determination of small amounts of pyridine bases in phenols.  
Zhur.anal.khim. 19 no.9:1155-1158 '64. (MIRA 17:10)

1. Kuznetskiy filial Vostochnogo nauchno-issledovatel'skogo instituta,  
Novokuznetsk.

BARSKIY, V.D.; MOSKOV, V.V.

Determining the optimum conditions for the colorimetric analysis of phenols. Zav.lab. 31 no.3:342-344 '65.

(MIRA 18:12)

BAKU, V.I.U., USSR.

Synthesis, uses and possibilities of alkyl iron in water purification  
systems. Sov. tekhn. zhurn. Khim. i khim. inzh., no.2:51-62 '73,  
(MNA 17:9)

BARSKIY, V.G.

Method of determining the doses of lime in the stabilized processing  
of water. Nauch. trudy AKNM no.22:86-90 '69. (MIRA 18:5)

*BARSKY*  
BARSKIY, V.I.

Examination and treatment of dysentery patients. Sov.med. 21  
Supplement:7-8 '57. (MIRA 11:2)  
(DYSENTERY)

PRAVDIN, Aleksandr Andreyevich; BARSKIY, V.N., otvetstvennyy redaktor;  
KONTOROVICH, A.I., tekhnicheskyy redaktor

[Construction of ships hulls] Konstruktsiya korpusa sudov. Leni-  
grad, Gos.soiuz.izd-vo sudostroit. promyshl., 1956. 470 p.

(Hulls (Naval architecture))

(MIRA 9:8)

BARSKIY, V.S., referent.

Smelting manganese alloys from poor ores. Biul. TSNIIICHM no. 5:57-58  
'58. (MIRA 11:5)  
(Manganese—Metallurgy)

ZELENIN, A.V.; BARSKIY, V.Ye.; DANIL'TSEVA, G.Ye.

Problems of biology and medicine at the 13th All-Union Conference  
on Luminescence. Izv. AN SSSR. Ser. biol. no.2:319-320 Mr-Ap '65.  
(MIRA 18:4)

MEYSEL, M. N.; MANTENFEL, V. M.; BARSKIY, V. Ye.; POGLAEVA, M. R.

"Fluorescent cytochemistry of cell damage, necrosis and intracellular  
digestion."

report submitted for 2nd Intl Conf, Histochemistry & Cytochemistry, Frankfurt,  
16-21 Aug 64.

Moscow.

Inst Physico-Chemical & Radiation Biology, AS USSR, Vavilov Street 11, Moscow  
B-312.

BARSKIY, V.Ya.; IVANOV, V.B.; FUSHAKOVA, T.V.

Luminescence microscopic study of the distribution and accumulation  
of proteins in plant roots. Izv. AN SSSR. Ser. biol. no.6:218-221  
N-D '65.

(MIR 18:11)

1. Institut molekulyarnoy biologii AN SSSR i Opticheskaya labora-  
toriya Instituta obshchey i neorganicheskoy khimii im. N.S.  
Kurnakova AN SSSR.

39187

S/262/62/000/007/006/016

I007/I207

Lb 120

AUTHOR: Barskiy Y.

TITLE: The Pirna 014 gas turbine for jet engines

PERIODICAL: Referativnyy zhurnal, otdel'nyy vypusk. 42. Silovyye ustavovki, no. 7, 1962, 41-42, abstract 42.7.188. "Motortechn. Z", v. 22, no. 10, 1961, 398-400 [Abstracter's note: original language German]

TEXT: The People's Pirna Plant (German Democratic Republic) designed for medium-range passenger planes, a single-shaft (spool) gas turbine of the Dirna type, having the following characteristics: thrust 3300kg; air consumption 53 kg/sec.; specific fuel consumption 0.85 kg/kg.hr; rotational speed 8100 rpm; weight 1050 kg; diameter 980 mm; length 3450 mm; Compressor parameters: 13 stages, axial flow, compression ratio S/c = 7, efficiency 0.83. Characteristics of driving turbine: two stages, efficiency 0.90. Gas temperature at the turbine inlet 1070°K. The ring-shaped combustion chamber has 12 fire tubes; chamber efficiency 0.98; pressure losses 2.5%; non uniformity of temperature distribution less than 50°C; service life of combustion chamber 1000 hours. The gas turbine rotor is supported by three slide bearings. The turbine shaft is connected to the compressor shaft by a slit coupling. The gas turbine engine is started by means of a 6 Kw electric starter. The acceleration rate of the gas turbine engine is very favourable: the time of shifting from idle running

Card 1/2

BARSKIY, Ya.N.

In the electrical repair shops of the "October Revolution Rail-road." Avtom., telem. i sviaz' 5 no.10:26 0 '61. (MIRA 14:9)  
(Railroads--Repair shops)

"APPROVED FOR RELEASE: 06/06/2000

CIA-RDP86-00513R000203710020-6

BARSKIY, Ya. S.

"Raising the Yield of the Vineyard," Vin. SSSR, No.4, 1952

APPROVED FOR RELEASE: 06/06/2000

CIA-RDP86-00513R000203710020-6"

1. BARSKIY, YA. S.

2. USSR (600)

4. Grapes

7. Extensive selection of grape stock by negative signs. Sad i og. no. 9, 1952.

9. Monthly List of Russian Accessions, Library of Congress, January, 1953. Unclassified.

1. BARSKIY, YA. S.
2. USSR (600)
4. Viticulture
7. Rejuvenating the vineyard. ~~Mad i og.~~ No. 12, 1952.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

1. BARSKIY, YA. S.
2. USSR (600)
4. Viticulture
7. Introducing a system of half-convering grapevines for winter. Vin SSSR  
13 No. 1, 1953.
9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

1. BARSKIY, Ya. S.
  2. USSR (600)
  4. Viticulture
  7. Large-scale selection of grape vines. 13, No. 4, 1953.
9. Monthly List of Russian Accessions, Library of Congress, April 1953. Unclassified.

BARSKY, Yu.P.

Physicochemical analysis of vitamins. The systems  
ascorbic acid-hydrazine monohydrochloride and ascorbic  
acid-aniline hydrochloride. A. F. Kapustinskii and Yu.  
P. Barskiy (D. I. Mendeleev Chem. Technol. Inst., Moscow).  
*Bull. acad. sci. U.R.S.S., Classe sci. chim.* 1946,  
559-9.—The melting diagram of the system  $C_6H_5NH_2$ -  
 $C_6H_5NH_2 \cdot HCl$  has a sharp max. at  $130^\circ$ , corresponding to the  
equimol. compnd.  $C_6H_5O_2N \cdot NH_2Cl$ . The max. in the sys-  
tem  $C_6H_5NH_2$ - $PhNH_2 \cdot HCl$ , at about  $130^\circ$ , is less sharp,  
but still indicates the compnd.  $C_6H_5O_2N \cdot PhNH_2Cl$ . Some  
anti. of decompn. along  $PhNH_2 \cdot HCl + C_6H_5O_2$   $\rightarrow$   $N \cdot NH_2 \cdot C_6H_5Cl + HCl$  does take place. N. Tchon

BARKSIY, YU. P.

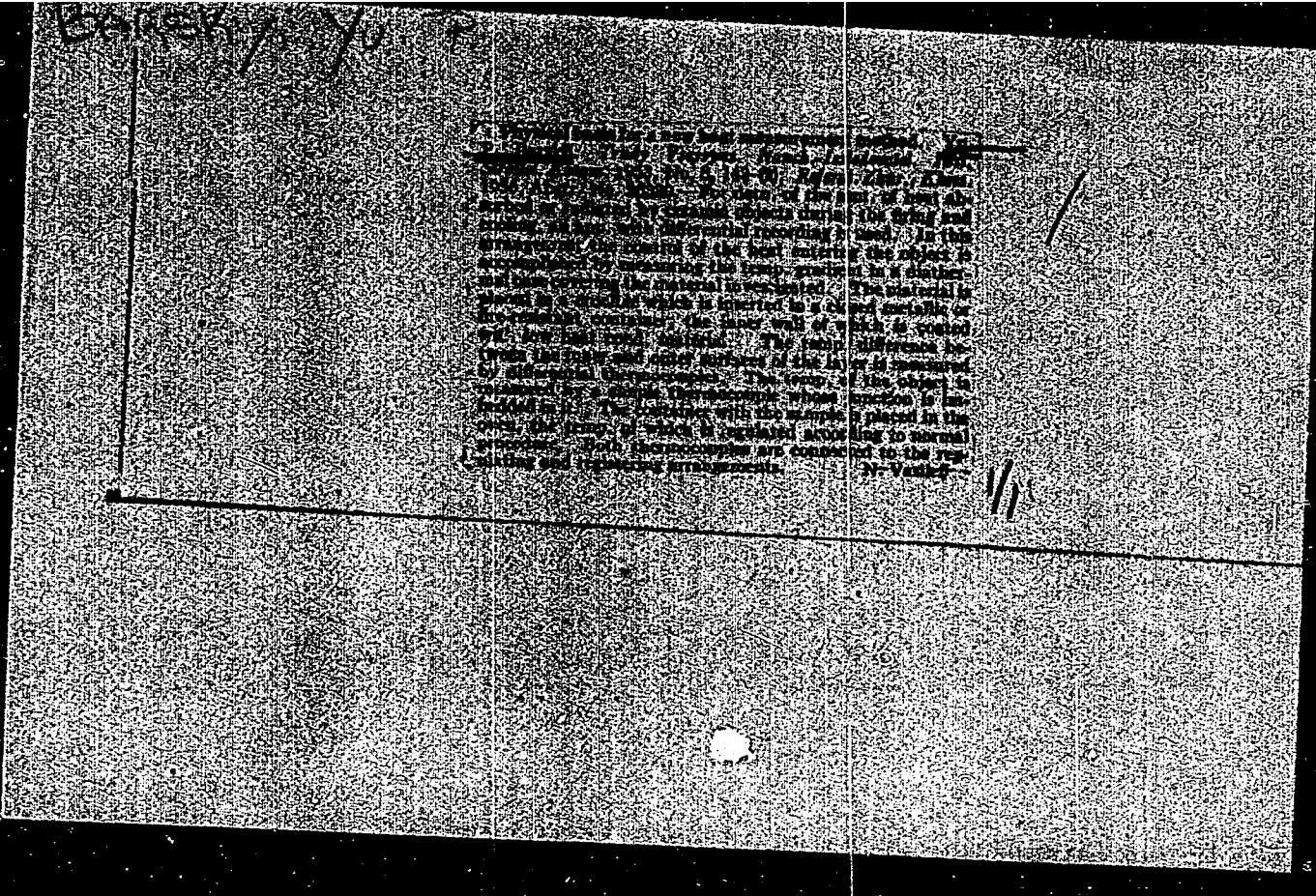
Thermographic method for determination of heat effects  
A. P. Kaputinskii and Yu. P. Barksii, Izvest. Akad. Nauk S.S.R., 20, 317-25 (1950).

Thermographs, although important in chem. research, furnish at best qual. information, e.g. the temp. and the sign of the thermal effect. They do not give the magnitude of the effect nor the heat capacity. To obtain this information it is necessary to ascertain the duration of the stop, the difference in temp. between the sample and the furnace, and the coeff. of heat transfer. Since the latter depends to a large extent on the nature of the sample, it is particularly hard to det., except for metals. In the proposed method the control of the heat delivered to the sample is outside the sample itself and therefore independent of its properties. This is attained by placing the studied sample inside a nonconducting shell and maintaining a const-temp. gradient between its outside and inside walls. Under such conditions the quantity of heat absorbed by the sample is calcd. from  $Qm = k\Delta t \Delta z$ , where  $\Delta z$  is the duration of the stop in min.,  $\Delta t$  is the temp. difference,  $k$  is the coeff. of heat transfer,  $m$  is the wt. of sample, and  $Q$  the thermal effect. For a case having no heat capacity ( $c$ ) (air gap)  $dQ/dt = m\Delta t$ ;  $dQ = k\Delta t dz$ . Then  $m_c = [k\Delta t/(dQ/dz)]$ , and  $Q/c = \Delta z(dQ/dz)$ . Where the shell has a heat capacity, the accuracy decreases as the difference in the heat capacities of shell and sample increases. The shell should be calibrated against substances of known  $c$  with reference to temp. and to rate of heating. A device for obtaining quant. thermographs designed in accordance with above conditions and a circuit for operating it automatically are described.

M. Hoss

"APPROVED FOR RELEASE: 06/06/2000

CIA-RDP86-00513R000203710020-6



APPROVED FOR RELEASE: 06/06/2000

CIA-RDP86-00513R000203710020-6"

BARSKIY, Yu. P., Cand Tech Sci -- (diss) "Development of  
a Method of Quantitative Thermography." Mos, 1958. 12 pp  
~~Ministry of Geology and Protection of  
Mineral Resources  
of the USSR. All-Union Sci Res.  
Inst Min Raw Materials VIMS)~~. 200 copies (KL 40-58, 114)

15 2600

S/081/61/030/021/046/094  
B149/B 101

AUTHOR: Barskiy, Yu. P.

TITLE: Method and apparatus for measuring the thermophysical properties of ceramic materials

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 21, 1961, 299, abstract 21K177 (Stroit. keramika. Inform. tekhn. sb., no. 2(6), 1960, 22-30)

TEXT: A method for a one-stage determination of the thermophysical coefficient has been based on a combined determination of the specific heat by direct measurement of the heat flow and thermal diffusivity under regular thermal conditions of the first kind. A basic diagram is given for apparatus used for measurement of the thermophysical coefficient, as well as the experimental procedures and the evaluation of results.  
[Abstracter's note: Complete translation.]

VB

Card 1/1

S/081/62/000/011/023/057  
E194/E184

AUTHOR: Barskiy, Yu.P.

TITLE: A calorimeter for thermal analysis

PERIODICAL: Referativnyy zhurnal, Khimiya, no.11, 1962, 167,  
abstract 11 E19. (Tr. Gos. Vses. n.-i. in-t stroit.  
keramiki, no.15, 1960, 159-166).

TEXT: A detailed description is given of a calorimetric equipment for a new method of quantitative thermography termed the thermal analysis method. The installation consists of a furnace containing a calorimeter, a device for automatic control of the furnace temperature according to a set programme, and a device for recording the test specimen temperature and also the temperature difference across the diathermal envelope of the calorimeter. The calorimeter has a body of heat-resistant alloy within which fits the diathermal envelope; this latter contains a platinum crucible. The inner space of the crucible is split up by radial platinum fins to accelerate temperature equalisation. The diathermal envelope (0.5 - 0.8 mm thick)

Card 1/2

A calorimeter for thermal analysis

S/081/62/000/011/023/057  
E194/E184

is made of a compound of the following percentage composition:  
fired alumina 50%, fired kaolin 30%, feldspar 20%, bound with  
wax. Temperature measurements were made by means of a  
Pt - Pt/Rh-thermocouple. The furnace is so constructed that  
the calorimeter is in a zone of even temperature.

[Abstractor's note: Complete translation.]

Card 2/2

9.6000

3628

S/081/62/000/006/041/117  
B101/B110

AUTHOR: Barskiy, Yu. P.

TITLE: Methods of measuring and recording the temperature parameters in quantitative thermography

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 6, 1962, 160, abstract 6Ye55 (Tr. Gos. Vses. n.-i. in-t stroit. keramiki, no. 15, 1960, 167 - 174)

TEXT: An apparatus for quantitative thermography with recording of the thermo-emf on photographic paper by means of mirror galvanometers is described. The optical method of scale extension is used to record both the background and the exothermic and endothermic effects on 470 mm wide photographic paper. The principle of the method consists in that the galvanometer mirror is illuminated simultaneously by several illuminators which are so arranged that after one reflex has passed along the slit of the recording camera the following reflex passes, etc. In the recording camera a kymograph drum with Warren motor is used. It has been found that the best antivibration support for mirror galvanometers is a textolite box with transformer oil placed upon four tennis balls. The Card 1/2

Methods of measuring and ...

S/081/62/000/006/041/117  
B101/B110

system for protection from inductions, checking, and the elimination of errors due to nonlinearity of the differential recording scale and to the zero drift of the galvanometer are described. [Abstracter's note:  
Complete translation.]

Card 2/2

BARSKII, Yu.P., kand.tekhn.nauk

Method of calibrating apparatus and calculations in thermal analysis. Trudy NIIStroikeramiki no.16:149-162 '60.(MIRA 15-2)  
(Ceramic materials—Testing)

BARSKY, Y. P.

"Thermal Analysis as a Method of Investigation of Heat and Mass Transfer with Phase Conversion."

Report submitted for the Conference on Heat and Mass Transfer,  
Minsk, BSSR, June 1961.

BARSKII, Y. P.

"Measurement of a non-stationary Heat Flow and New Methods of  
Investigation of Thermal Properties."

Report submitted for the Conference on Heat and Mass Transfer,  
Minsk, BSSR, June 1961.

S/081/62/CCO/009/037/075  
B166/3101

AUTHOR:

Barskiy, Yu. P.

TITLE:

Development of an automatic temperature control device for thermal analysis

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 9, 1962, 349, abstract 91141 (Tr. Gos. n.-i. in-t stroit. keramiki, no. 17, 1961, 70-98)

TEXT: This article describes the results of work on selection of the working principle and on designing an automatic temperature regulator. Two methods of analysis were used, on assuming steady heating of the furnace in accordance with a specific temperature program and the other a constant temperature difference at the diathermic casing. In the course of the experiments the "three-position", the "impulse", the "proportional" and the "derivative" methods of regulation were tried. An installation (described in the article) was worked out which achieves a regulation accuracy within 0.5% of the temperature difference at the casing, i.e. of less than 0.001. By way of example a thermogram for Prosvyanaya kaolin is

Card 1/2

Development of an automatic ...

S/081/62/000/009/037/075  
B168/B101

reproduced as taken by the apparatus using the 1st and the 2nd method of analysis. [Abstracter's note: Complete translation.]

Card 2/2

ACCESSION NR: AP4009838

S/0191/64/000/001/0062/0064

AUTHORS: Shlenskiy, O.F.; Barskiy, Yu. P.; Pichugin, N.P.

TITLE: Heat capacity and heat conductivity of plastics as determined during their destruction by heat

SOURCE: Plasticheskiye massy\*, no. 1, 1964, 62-64

TOPIC TAGS: plastic thermodestruction, plastic heat conductivity, plastic heat capacity

ABSTRACT: Due to destruction of plastics by heat at elevated temperatures, thermophysical  $\lambda$  and  $c_V$  coefficients not only depend on the temperature but also on time. To study these relationships, a special furnace, described in detail, was devised which assured a heat increase of 100 per second. Tests were made with the ED-6 epoxy resin at temperatures from 0 to 6000 and heat conductivity  $\lambda$  (in kcal/m-hr-degree) and heat capacity  $c_V$  (kcal/m<sup>3</sup>) were determined and plotted for different rates of temperature increase. It

Card 1/2

ACCESSION NR: AP4009838

has been found that the density of the plastic and, thus,  $c\lambda$  decrease at temperatures above the beginning of destruction. Heat conductivity  $\lambda$  also decreases because of gas pockets formed in the mass. When destruction is completed, both coefficients rise again with rising temperature. Not only temperature but the rate of its increase in time influence these coefficients. Maximum heat conductivity coefficients for epoxy resins were determined. Orig. art. has 5 figures, 4 formulas, no tables.

ASSOCIATION: None

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ENCL: 00

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Measurement of the heat capacities of solid  $\text{Fe}_2\text{O}_3$  by calorimetry at temperatures up to  $1400^\circ\text{C}$ . Inv. communication; accepted 3 July 1957 D-165. (Phys. Chem.)

1. Klaipėdos racėjų institutui plokščioje pr. Lelyvo g. 1;  
Instituto darbuotojai iš Šiaurės, Mėtos, iš Vakarų ir  
Naujųjų žemės ūkio universiteto institutų fakultetų arba iš  
raštinių administracinių įstaigų, joms išteikti teisės dy-  
rektorui. Sutarties laikas yra 10 mėn.

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REF ID: A6590

1. In 1970, the U.S. government was asked to provide information concerning the possible existence of biological weapons in the People's Republic of China.  
(MLIA 1816)

2. Referring initially to the Chinese Biological Warfare Institute  
conducting research on Anthrax.

APPROVED FOR RELEASE: 06/06/2000

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BARSKOV, A.K., inzhener.

Selecting efficient single-bucket excavators. Mekh.stroi. 13 no.1:  
11-15 Ja '56. (MLRA 9:3)  
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